Serial No. 09/740,088
Art Unit No. 2182

LISTING OF CLAIMS

1. (currently amended) A method for defining the scope of an application ~~applications~~ in a distributed network environment having a plurality of networked computers with internet protocol (IP) drivers comprising the steps of:

defining the physical scope for each of said IP Drivers in the distributed network;

discovering the physical network by scanning with said IP drivers;

mapping the physical network into a graphical network representation;

creating a logical network comprising components of said mapped physical network by determining logical paths for said application based on the logical network and aligning the logical paths for said application to the mapped physical network; and

defining the logical scope for said ~~each~~ application based on the logical network and the mapped physical network, wherein said logical scope includes only endpoints aligned to said logical paths.

2. (original) A method for determining application access to at least one endpoint in a distributed network environment having a plurality of computers each with at least one endpoint, comprising the steps of:

obtaining the logical scope for said application;

for each physical entity found within the logical scope for said application, identifying the physical entity and obtaining the physical scope for said physical entity;

accumulating the physical scopes for all physical entities which are found in the logical scope to define the application's network; and

determining whether a given endpoint is within the defined application's network.

3. (original) The method of Claim 2 further comprising storing the defined application network for each application.

4. (original) The method of Claim 3 further comprising limiting the application's interactions within the network based on the application's network.

5. (currently amended) The method of Claim 4 ~~Claim 3~~ wherein said application comprises a self-replicating program and wherein said limiting comprises the steps of:

obtaining an application scope as the span of control for a given application;

replicating copies of the program to computers within the span of control;

preventing replication at computers outside of the span of control; and

ceasing replication when ~~substantially~~ all computers within the span of control have installed copies of the program.

6. (original) The method of Claim 2 wherein said plurality of network computers include IP Drivers and wherein said obtaining the logical scope for each of said applications comprises the steps of:

defining the physical scope for each of said IP Drivers in the distributed network;

discovering the physical network by scanning with said IP drivers;

mapping the physical network into a graphical network representation;

creating a logical network comprising components of said mapped physical network; and

defining the logical scope for each application based on the logical network and the mapped physical network.

7. (original) The method of Claim 5 wherein said plurality of network computers include IP Drivers and wherein said obtaining the logical scope for each of said applications comprises the steps of:

defining the physical scope for each of said IP Drivers in the distributed network;

discovering the physical network by scanning with said IP drivers;

mapping the physical network into a graphical network representation;

creating a logical network comprising components of said mapped physical network; and

defining the logical scope for each application based on the logical network and the mapped physical network.

8. (original) A control server for determining application access to endpoints in a distributed network

comprising a plurality of computers each having at least one endpoint, comprising:

at least one IP driver for controlling at least one of said endpoints;

at least one storage location for storing at least the physical scope of control for each of said at least one IP driver and at least one application scope for each application to be run on the network; and

a Scope Manager component for administering the scope for each of the at least one IP driver and the at least one application.

9. (original) The server of Claim 8 wherein said Scope Manager is adapted to define the at least one application scope for each application to be run on the network.

10. (currently amended) A program storage device readable by machine tangibly embodying a program of instructions executable by the machine to perform method steps for defining the scope of an application ~~applications~~ in a distributed network environment having a plurality of

networked computers with internet protocol (IP) drivers said method comprising the steps of:

defining the physical scope for each of said IP Drivers in the distributed network;

discovering the physical network by scanning with said IP drivers;

mapping the physical network into a graphical network representation;

creating a logical network comprising components of said mapped physical network by determining logical paths for said application based on the logical network and aligning the logical paths for said application to the mapped physical network; and

defining the logical scope for said ~~each~~ application based on the logical network and the mapped physical network, wherein said logical scope includes only endpoints aligned to said logical paths.

11. (original) A program storage device readable by machine tangibly embodying a program of instructions executable by the machine to perform method steps for determining application access to at least one endpoint in a distributed network environment having a plurality of

computers each with at least one endpoint, said method comprising the steps of:

obtaining the logical scope for said application;

for each physical entity found within the logical scope for said application, identifying the physical entity and obtaining the physical scope for said physical entity;

accumulating the physical scopes for all physical entities which are found in the logical scope to define the application's network; and

determining whether a given endpoint is within the defined application's network.

12. (original) The program storage device of Claim 11 wherein said method further comprises storing the defined application network for each application.

13. (original) The program storage device of Claim 12 wherein said method further comprises limiting the application's interactions within the network based on the application's network.

14. (currently amended) The program storage device of ~~Claim 11~~ Claim 13 wherein said application comprises a

self-replicating program and wherein said limiting method step further comprises the steps of:

obtaining an application scope as the span of control for a given application;

replicating copies of the program to computers within the span of control;

preventing replication at computers outside of the span of control; and

ceasing replication when ~~substantially~~ all computers within the span of control have installed copies of the program.

15. (original) The program storage device of Claim 11 wherein said plurality of network computers include IP Drivers and wherein said method step of obtaining the logical scope for each of said applications comprises the steps of:

defining the physical scope for each of said IP Drivers in the distributed network;

discovering the physical network by scanning with said IP drivers;

mapping the physical network into a graphical network representation;

creating a logical network comprising components of said mapped physical network; and

defining the logical scope for each application based on the logical network and the mapped physical network.

16. (original) The program storage device of Claim 14 wherein said plurality of network computers include IP Drivers and wherein said method step of obtaining the logical scope for each of said applications comprises the steps of:

defining the physical scope for each of said IP Drivers in the distributed network;

discovering the physical network by scanning with said IP drivers;

mapping the physical network into a graphical network representation;

creating a logical network comprising components of said mapped physical network; and

defining the logical scope for each application based on the logical network and the mapped physical network.

17. (new) The method of Claim 1 further comprising limiting the application's interactions within the network based on

the application's network wherein said application comprises a self-replicating program and wherein said limiting comprises the steps of:

obtaining an application scope as the span of control for a given application;

replicating copies of the program to computers within the span of control;

preventing replication at computers outside of the span of control; and

ceasing replication when all computers within the span of control have installed copies of the program.

18. (new) The server of Claim 9 wherein said Scope Manager defines the scope of an application in a distributed network environment having a plurality of networked computers with internet protocol (IP) drivers by the steps of:

defining the physical scope for each of said IP Drivers in the distributed network;

receiving physical network information from said IP drivers based on scanning by said IP drivers;

mapping the physical network into a graphical network representation;

creating a logical network comprising components of said mapped physical network by determining logical paths for said application based on the logical network and aligning the logical paths for said application to the mapped physical network; and

defining the logical scope for said application based on the logical network and the mapped physical network, wherein said logical scope includes only endpoints aligned to said logical paths.